#7663

UNION CARBIDE CORPORATION
MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE 06/20/96

Union Carbide urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) reqeust its customers to notify their employees, customers, and other users of the product of this information.

I. IDENTIFICATION

PRODUCT NAME:	**UCON Lubricant LB-400-X**
CHEMICAL NAME:	Mixture
CHEMICAL FAMILY:	Polyalkylene Glycol
FORMULA:	Trade Secret
MOLECULAR WEIGHT:	Mixture
SYNONYMS:	None
CAS # AND NAME:	See Section III, "Ingredients"

II. PHYSICAL DATA(Determined on Typical Material)

BOILING POINT, 760 mm Hg:	Decomposes >200 C (>392 F)
SPECIFIC GRAVITY(H2O = 1):	0.994 AT 20/20 C
FREEZING POINT:	Pour point <-29 C (<-20 F)
VAPOR PRESSURE AT 20'C:	<0.01 mmHg

EMERGENCY PHONE NUMBERS: 1-800-UCC-HELP (NUMBER AVAILABLE AT ALL TIMES) OR (304) 744-3487

UNION CARBIDE CORPORATION
39 Old Ridgebury Road, Danbury, CT 06817-0001

PRODUCT NAME: UCON Lubricant LB-400-X

VAPOR DENSITY (AIR = 1): >1

EVAPORATION RATE (Butyl Acetate = 1): Nil

SOLUBILITY IN WATER by wt: <0.1

APPEARANCE: Amber

ODOR: Mild

PHYSICAL STATE: Liquid

III. INGREDIENTS

%	MATERIAL	CAS#	EXPOSURE LIMIT
>95	Polypropylene Glycol Monobutyl Ether	9003-13-8	None established
< 5	N-phenyl-alpha-naphthylamine	90-30-2	None established

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT(test method(s)): 423 F (217 C)
Pensky-Martens Closed Cup ASTM D 93

505 F (262 C)
Cleveland Open Cup ASTM D 92

FLAMMABLE LIMITS IN AIR % by volume: LOWER: Not Determined
UPPER: Not Determined

SPECIAL FIRE FIGHTING PROCEDURES: Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.
Use self-contained breathing apparatus and protective clothing.

EXTINGUISHING MEDIA: Apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This material may produce a floating fire hazard in extreme fire conditions.

PRODUCT NAME: UCON Lubricant LB-400-X

During a fire, oxides of nitrogen may be produced.

V. HEALTH HAZARD DATA

EXPOSURE LIMIT(S): None established by OSHA or ACGIH.

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: No evidence of harmful effects from available information.

SKIN ABSORPTION: No evidence of harmful effects from available information.

INHALATION: Short-term harmful health effects are not expected from vapor generated at ambient temperature.

SKIN CONTACT: Brief contact is not irritating.
Prolonged contact may cause reddening, itchiness, a burning sensation, and possible drying and flaking of the skin.

EYE CONTACT: May cause irritation, experienced as stinging with excess blinking and tear production.
Excess redness of the conjunctiva may occur.

EFFECTS OF REPEATED OVEREXPOSURE:
No adverse effects anticipated from available information.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
Skin contact may aggravate an existing dermatitis.
Exposure to this material may decrease the oxygen-carrying capacity of the blood. Individuals with cardiovascular disease or impairment of the respiratory function may be at increased risk.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:
Contains one or more amines which may react with nitrites to form nitrosamines. Some nitrosamines have been shown to be carcinogenic in laboratory animals.

OTHER EFFECTS OF OVEREXPOSURE:
Overexposure to vapor, aerosol or mist generated at high temperature may result in eye and respiratory tract irritation, dizziness, nausea and the inhalation of harmful amounts of material.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING: No emergency care anticipated.

SKIN: Wash skin with soap and water.

INHALATION: Remove to fresh air.

PRODUCT NAME: UCON Lubricant LB-400-X

EYES: Immediately flush eyes with water and continue washing for several minutes. Remove contact lenses, if worn. Obtain medical attention.

NOTES TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

VI. REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: WARNING: Do not mix this product with nitrites or other nitrosating agents because a nitrosamine may be formed. Nitrosamines may cause cancer.

INCOMPATIBILITY (materials to avoid):
Normally unreactive; however, avoid strong bases at high temperatures, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:
Combustion may produce the following products:
Oxides of carbon and nitrogen.
Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.
Acute overexposure to the products of combustion may result in irritation of the respiratory tract.
See Section V, "Other Effects of Overexposure."

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: None

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Wear suitable protective equipment, especially eye protection.
See Section VIII.
Small spills can be flushed with large amounts of water; larger spills should be collected for disposal.
See Section IX, Other Precautions.

WASTE DISPOSAL METHOD:
Incinerate in a furnace or otherwise dispose of in accordance with appropriate Federal, State, and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type):
None required for use at low temperatures.

VENTILATION: General (mechanical) room ventilation is satisfactory for use at low temperatures. If used at high temperatures, special local ventilation

PRODUCT NAME: UCON Lubricant LB-400-X

is recommended at points where vapors can be expected to escape to the workplace air.

PROTECTIVE GLOVES: Polyvinyl chloride coated

EYE PROTECTION: Monogoggles

OTHER PROTECTIVE EQUIPMENT:
Eye Bath, Safety Shower

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

WARNING!
CAUSES EYE AND SKIN IRRITATION.
VAPOR, AEROSOL OR MIST OF THE PRODUCT AND THERMAL DEGRADATION PRODUCTS GENERATED AT HIGH TEMPERATURE CAN BE IRRITATING AND HARMFUL IF INHALED.

Avoid contact with eyes, skin and clothing.
Avoid breathing vapor.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

Do not add nitrites or other nitrosating agents.
A nitrosamine, which may cause cancer, may be formed.

FOR INDUSTRY USE ONLY

OTHER PRECAUTIONS:

SPILLS: This product has very low solubility in water and will float on the surface. Avoid drainage of large spills to sewers or to natural waters.

ADDITIONAL INFORMATION: Additional product safety information on this product may be obtained by calling your Union Carbide Corporation Sales or Customer Service contact.
Ask for the brochure:
UCON Fluids and Lubricants (Family Brochure).
Ask about the availability of specific product and end-use bulletins.

PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions.

Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapors."

X. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:

The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations.

PRODUCT NAME: UCON Lubricant LB-400-X

Trade Secrets are indicated by "TS".

FEDERAL EPA

Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4.

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312).

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

Toxic Substances Control Act (TSCA) STATUS:

The ingredients of this product are on the TSCA inventory.

STATE RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product contains trace amounts of ALPHA-NAPHTHYLAMINE, BETA-NAPHTHYLAMINE and ANILINE known to the State of California to cause cancer.
See Massachusetts listing for amounts.

MASSACHUSETTS Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

EXTRAORDINARILY HAZARDOUS SUBSTANCES (=> 0.0001%)

CHEMICAL	CAS NUMBER	UPPER BOUND CONCENTRATION %
beta-Naphthylamine	91-59-8	0.00010
alpha-Naphthylamine	134-32-7	0.00100
Aniline	62-53-3	0.00500

PENNSYLVANIA Right-to-Know, Hazardous Substance List Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

*** NONE ***

PRODUCT NAME: UCON Lubricant LB-400-X

CALIFORNIA SCAQMD RULE 443.1 VOC'S:
****NOT DETERMINED****

OTHER REGULATORY INFORMATION:
EPA Hazard Categories: Immediate Health, Delayed Health

NOTE ----
The opinions expressed herein are those of qualified experts within Union Carbide. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of the use of the product are not under the control of Union Carbide, it is the user's obligation to determine conditions of safe use of the product.

REVISED SECTIONS:
Section V - Health Hazard Data
Section IX - Special Precautions
Section X - Regulatory Information

PRODUCT: 94457
F NUMBER: B0209D

UNION CARBIDE CHEMICALS

Specialty Chemic UCON LUBRICANT LB-400-X 7663

MATERIAL SAFETY

EFFECTIVE DATE

Union Carbide urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material of the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) request its customers to notify their employees, customers, and other users of the product of this information.

I. IDENTIFICATION

PRODUCT NAME: UCON Lubricant LB-400-X

CHEMICAL NAME: Mixture

CHEMICAL FAMILY: Polyalkylene Glycol

FORMULA: Trade Secret

MOLECULAR WEIGHT: Mixture

SYNONYMS: None

CAS NAME: See "SECTION III"

II. PHYSICAL DATA (Determined on typical material)

BOILING POINT, 760 mm Hg: Decomposes: >200 C (>392 F)

FREEZING POINT: POUR POINT: < -29 C (< -20 F)

SPECIFIC GRAVITY(H2O =1): 0.994 at 20/20 C

VAPOR PRESSURE AT 20°C: < 0.01 mm Hg

VAPOR DENSITY (air = 1): > 1

SOLUBILITY IN WATER by wt: < 0.1

EVAPORATION RATE (Butyl Acetate = 1): Nil

APPEARANCE AND ODOR: Water-white to light yellow liquid; no odor

EMERGENCY PHONE NUMBER: 1-800-UCC-HELP (Number available at all times)

UNION CARBIDE CHEMICALS AND PLASTICS COMPANY INC.
Specialty Chemicals Division
39 Old Ridgebury Road, Danbury, CT. 06817-0001

ks 5/8/90

PRODUCT NAME: UCON Lubricant LB-400-X

III. INGREDIENTS

MATERIAL	%	TLV (Units)	HAZARD
Polypropylene Glycol Monobutyl Ether CAS#: 9003-13-8	>95	None established	See Section V
Trade Secret Additive	< 5	None established	See Section V

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method(s)): 423 F (217 C), Pensky-Martens Closed Cup ASTM D 93
505 F (262 C), Cleveland Open Cup ASTM D 92

FLAMMABLE LIMITS IN AIR, % by volume: LOWER: Not determined
UPPER: Not determined

EXTINGUISHING MEDIA: Apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use CO_2 or dry chemical media for small fires.

SPECIAL FIRE FIGHTING PROCEDURES: Do not direct a solid stream of water or foam into hot burning pools; this may cause frothing and increase fire intensity. Use self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This material may produce a floating fire hazard in extreme fire conditions. During a fire, oxides of nitrogen may be produced.

V. HEALTH HAZARD DATA

TLV AND SOURCE: None established by OSHA or ACGIH.

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: No evidence of adverse effects from available information.

SKIN ABSORPTION: No evidence of adverse effects from available information.

INHALATION: No evidence of adverse effects from available information.

SKIN CONTACT: Brief contact is unlikely to produce any significant effects to the skin. More prolonged contact is likely to produce reddening, itchiness, a burning sensation, and possible drying and flaking of the skin.

EYE CONTACT: May cause stinging and pain with excess tear formation and mild reddening of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE:
No evidence of adverse effects from available information.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
Skin contact may aggravate an existing dermatitis.
Due to methemoglobin formation, individuals with cardiovascular disease or impairment of respiratory function may be at additional risk.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: Contains an amine which may react with nitrites to form a nitrosamine. Some nitrosamines have been shown to be carcinogenic in laboratory animals.

OTHER EFFECTS OF OVEREXPOSURE:
Overexposure to vapors generated at high temperatures may result in eye and respiratory tract irritation and in the inhalation of harmful amounts of material.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING:	No harmful effects expected.
SKIN:	Wash with soap and water.
INHALATION:	Remove to fresh air.
EYES:	Flush thoroughly with water for several minutes. Seek medical attention.
NOTES TO PHYSICIAN:	There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

VI. REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: WARNING: Do not mix this product with nitrites or other nitrosating agents because nitrosamines may be formed. Nitrosamines may cause cancer.

INCOMPATIBILITY (materials to avoid):
Normally unreactive; however, avoid strong bases at high temperatures, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:
Combustion may produce oxides of carbon and nitrogen. See Section V, 'Other Effects of Overexposure.'

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: None

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Wear suitable protective equipment, especially eye protection. See Section VIII. Small spills could be flushed with large quantities of water. Larger spills should be collected for disposal. See Section IX.

WASTE DISPOSAL METHOD: Incinerate in a furnace or otherwise dispose of in accordance with applicable Federal, State, and local requirements.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type):
None required for use at low temperatures.

VENTILATION: General (mechanical) room ventilation is satisfactory for use at low temperatures. If used at high temperatures, special local ventilation is recommended at points where vapors can be expected to escape to the workplace air.

PROTECTIVE GLOVES: Polyvinyl chloride-coated

EYE PROTECTION: Monogoggles

OTHER PROTECTIVE EQUIPMENT:
Eye bath and safety shower.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
WARNING: CAUSES EYE AND SKIN IRRITATION.
Avoid contact with eyes, skin, and clothing.
Wash thoroughly after handling.
Do not add nitrites or other nitrosating agents. A nitrosmine, which may cause cancer, may be formed.
FOR INDUSTRY USE ONLY

OTHER PRECAUTIONS:
SPILLS: This product has very low solubility in water and will float on the surface. Avoid drainage of large spills to sewers or to natural waters.
WARNING: Many hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below those published in the literature as "autoignition" or "ignition" temperatures. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time, and are influenced by pressure changes.

Ignition of organic chemical vapors may occur at typical elevated-temperature process conditions, especially in processes operating under vacuum if subjected to sudden ingress of air, or outside process equipment operating under elevated pressure if sudden escape of vapors or mists to the atmosphere occurs.

Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

X. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:
The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations. Trade Secrets are indicated by "TS".

FEDERAL EPA

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4.

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III
requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312).
Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III
requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.
Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

STATE RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.

MASSACHUSETTS Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.
Components present in this product at a level which could require reporting under the statute are:
EXTRAORDINARILY HAZARDOUS SUBSTANCES (=> 0.0001%)

CHEMICAL	CAS NUMBER	UPPER BOUND CONCENTRATION %
Propylene Oxide	75-56-9	0.00100

PENNSYLVANIA Right-To-Know, Hazardous Substance List Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products.
Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Toxic Substances Control Act(TSCA) STATUS:
The ingredients of this product are on the TSCA inventory.

CALIFORNIA SCAQMD RULE 443.1 VOC'S:
**** NOT APPLICABLE ****

OTHER REGULATORY INFORMATION:
REVISED SECTIONS: EPA Hazard Categories: Immediate Health Hazard
Delayed Health Hazard